OREGON STATE UNIVERSITY
COMPUTER CENTER NEWSLETTER

Corvallis, Oregon
(503) 754-2494

Volume X, Number 1
January/February, 1975

Director: Larry C. Hunter

Editor: JoAnn Baughman

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FREE TIME PERIOD FOR CYBER CHECKOUT EXTENDED

In order to allow faculty members additional time to become familiar with the new computer system and to convert their programs, CYBER free time usage will be extended through February 28, 1975. This extension is the result of many requests and the recognition that many faculty members could not obtain manuals until recently.

Faculty members who have not yet checked out temporary job numbers may do so at the Computer Center. Remember, these temporary numbers have a ten minute CPU limit per run. Temporary numbers will expire March 1, but may be converted to permanent job numbers by notifying the Computer Center.

Beginning in March, work done on the new machine will be billed at the rates shown in the following charging schedule. User numbers are checked out by contacting Gayle in room 142 in the Computer Center or by calling her at extension 3483.

CYBER CHARGING SCHEDULE

The CYBER billing structure is similar to that used for OS-3 on the 3300. That is, each component used by a program is charged for according to its level of use. On the CYBER the central processor usage is billed on the basis of a "System Second". A system second takes into account central processor and I/O time and the amount of central memory used. The number of system seconds that a job uses is calculated by the formula:

System Seconds = Central processor time + (I/O time) x
(fraction of available memory used)

Central processor time is that actually used by the user's program. I/O time refers only to disk and tape transfers and is calculated by summing all I/O request times. The resulting time is then multiplied by the fraction of the total available memory (49K) that the user's program requires. The result is an amount less than the actual I/O time.

The memory used is included in the system second computation because the overall efficiency of a time-sharing system is based on its ability to allocate system resources to several concurrent jobs. Since jobs must reside in central memory in order to use the processor, a job which uses all of the available memory

prevents others from using the processor. The System Second formula is designed to discount the I/O processing time by the fraction of memory left to other jobs.

CYBER RATES FOR OREGON STATE UNIVERSITY

CPU charge	$ .085/system second
Input cards	$ .15/100 cards
Punch cards	$ .30/100 cards ($ .12/100 if stock supplied)
Line Printer	$ .10/100 lines (+ charge for special forms used)
On-line disk storage (Indirect files)	$ .10/640 characters + $5.00/ direct access file/ month.

Interactive Terminal Connect Charges

110 baud	$1.50/hour
300 baud	$3.00/hour
Terminal I/O	$ .05/1000 characters

Remote Batch Terminal Charges

Connect Charge (2400 baud)		$7.50/hour
Terminal I/O:	Input	$ .05/100 cards
	Output	$ .05/100 lines

Commercial Rates

Commercial rates are 160 percent of University rates.

CYBER HOURS

The KRONOS operating schedule is 11 a.m. to 9 p.m. Monday through Friday. These hours may change as user load is evaluated.

CYBER MANUALS

The following manuals are recommended for all users of the new CYBER system.

* Kronos 2.1 TIME-SHARING USER'S REFERENCE MANUAL (60407600)
* Kronos 2.1 TEXT EDITOR REFERENCE MANUAL (60408200)
* Kronos 2.1 REFERENCE MANUAL (60407000)
* Kronos 2.1 TERMINAL USER'S INSTANT MANUAL (60407800)

CYBER users may also wish to consult one or more of the following manuals:

* FORTRAN EXTENDED VERSION 4 REFERENCE MANUAL (60305600)

  COBOL VERSION 4 REFERENCE MANUAL (60384100)

  BASIC REFERENCE MANUAL (19980300)

  COMPASS VERSION 3 REFERENCE MANUAL (60360900)

  SORT/MERGE VERSIONS 4 AND 1 REFERENCE MANUAL (60343900)

  RECORD MANAGER GUIDE FOR USERS OF FORTRAN EXTENDED (60385200)

  LOADER REFERENCE MANUAL (60344200)

  FORTRAN EXTENDED DEBUG USER'S GUIDE (60329400)

  APL*CYBER REFERENCE MANUAL

Manuals marked with * are stocked at the OSU bookstore. Other manuals in this list will be ordered by the bookstore on request.

A set of reference manuals for the Kronos operating system are available for your convenience in the Computer Center I/O room (206).

OUTPUT IDENTIFICATION FOR JOBS RUN ON THE CYBER

Users must put some identification on the JOB card when using the CYBER to aid the clerk in filing your output. The ID must come after the period as examples shown below:

```
JOBIDEN,CM20000,T100.JIM JONES
JOBIDEN,CM40000,T500.MARTY PRATT
JOBIDEN,CM70000,T300.SAVE FOR OSCAR WILDE
```

CYBER TERMINALS

Terminal access to the CYBER is being expanded as rapidly as possible. Currently, there are two 110 baud, full duplex dial up lines connected to Kronos. The number is 754-3651. One 300 baud, full duplex dial up line is also available on 754-1115.

For more information regarding connection of remote terminals to the CYBER contact Fred Beebee at x2494.

Three hard-wired, 110 baud teletypes are connected to Kronos and are to be found in room 211 in the Computer Center.

Anyone who has a Tek Terminal with selectable baud rates that is connected through the Tek Terminal patch panel may be connected to Kronos for testing and familiarization. Contact Fred Beebee x2494 for further information.

USE LABELED TAPES ON THE CYBER

For efficiency and economy users are asked to use Labeled Tapes on the CYBER 73. An unlabeled tape request ties up a control point and an area of central memory while the operator physically locates and mounts your tape. The user is charged for this time that the program resides in the central memory.

On a labeled tape request, the request program is swapped in and looks at unused tape drives for the proper tape. If not found, the program is swapped out for a short period of time. The process is repeated until the request is satisfied. Therefore, in a request for labeled tapes the user spends much less time in central memory.

Labeled tapes are now available at the Computer Center I/O desk for the use on the CYBER 73.

NEW OS-3 MANUAL AVAILABLE FROM COMPUTER SCIENCE DEPARTMENT

The Computer Science Department has published a new manual to assist on-line users. Entitled "An Introduction to EDIT and OS-3" the manual is intended to provide new time-sharing users the fundamentals needed to create and run programs from a terminal. Examples are directed at FORTRAN users.

The main emphasis of the manual is on the OS-3 Editor with considerable attention given to control mode commands. Other topics covered are DECKEDIT and COSY. Many examples are included.

The manual can be purchased from the Computer Science Department in Kidder 368D for 85¢.

NEW OS-3 CHARGE SCHEDULE

Plotter

Due to the increase in the cost of plotter paper, a new charging schedule for the plotter use will become effective April 1. The new charging formula will be:

$ .12/100 records + $ .15/foot of paper.

This formula represents a 50% decrease in the old hourly rate of $10/hour with paper usage being accounted for separately. Charges for paper usage will not be included in the logoff cost message, but will be included on the monthly statement.

Punch

Due to the increase in the cost of card stock a new charging schedule for punch cards will become effective April 1. The new charging formula will be:

$ .30/100 cards ($ .12/100 if stock supplied)

Magnetic Tape

Effective March 1, the tape charges on OS-3 will be reduced to $ .015/sec. channel time + $ .50 mounting charge.

SPECIAL FORMS CHARGES

The Computer Center will start charging extra for all forms other than the regular 11 x 14 one-part paper form on March 1. The January/February, 1974 newsletter stated that a special forms charge would be in effect in April of 1974, but this new charge was deferred. However, paper costs continue to rise and we must now charge users for special forms used. Additional paper costs will be calculated by subtracting the cost of the regular 11 x 14 one-part paper from the cost of the special forms and adding this to your monthly statement.

SOFTWARE

CYBER SOFTWARE

Software products currently supported under Kronos on the CYBER 73 are the following:

FORTRAN 4 extended
COBOL 4
BASIC 2.1
ALGOL 3
RECORD MANAGER
COMPASS
SORT/MERGE
APL*CYBER
SYMPL

The Computer Center systems group under Jeff Ballance and assisted by the CONDUIT programming staff is working on or planning to implement the following software systems:

SPSS - The Statisitcal Package for Social Sciences is a self-contained problem-oriented batch language for the analysis of Statistical Samples.

Pascal 2 - A high level general purpose programming language developed by Dr. Wirth in Zurich, Switzerland. Documentation will be available at a later date. (Running)

EXPERSIM - A system for teaching research design and strategy through computer simulation. (In progress)

IMP-73 - An Integrated Mechanical Processing Program for the computer simulation of mechanical systems.

SSP - A collection of FORTRAN subroutines in the areas of Mathematics and Statistics.

SNOBOL 3.1 - A list processing language.

If you have any questions or other suggestions call Jeff Ballance x2494 or JoAnn Baughman at x2161.

USER OPERATIONS & SERVICES

CONSULTING SERVICES

The Computer Center provides for user consultation in several areas. The general consultant is on duty every afternoon from 2 p.m. to 5 p.m. in room 208 of the Computer Center x1650.

Consulting for Kronos users is available in Room 211 of the Computer Center, Monday to Thursday from 1:30 p.m. to 4:30 p.m.

Consulting for SIPS is available in Batchelor 300, Monday through Thursday from 1:30 p.m. to 4:30 p.m.

COMPUTER CENTER TAB ROOM

On March 1, the unit record equipment will be located in a "tab" room with a tab equipment operator. The Tab Room is located in Room 211 and will provide services for sorting, bursting, deleaving, and interpreting.

For these services users will submit and pick up their jobs at the Tab Room. Users who request these services via FORMS messages on the computer will continue to have their requests handled automatically but will pick up their output in the Tab Room.

DECK REPRODUCTION AND LISTINGS

Because the user will find it simple to use the COPY command to reproduce or list decks, the Computer Center is dropping the deck reproduction and listing service on March 1. There will be instructions posted in the I/O room to show those not familiar with the COPY command the control cards needed.

COMPUTER CENTER DIRECTORY

DIRECTOR, Larry C. Hunter 754-2494

OPERATIONS, Ron Davis 754-2494

INSTRUCTIONAL/CONDUIT, JoAnn Baughman . 754-2161
754-2494

CONSULTING

General (2 - 5 p.m.) 754-1650

CYBER (1:30 - 4:30 pm, Except Friday) 754-2494

SIPS (1:30 - 4:30 pm, Except Friday). 754-2953

COMPUTER OPEATIONS

I/O 754-2033

Job Numbers 754-3483

Manuals 754-3483

BUSINESS & ACCOUNTING 754-2638

Computer dial-up phone numbers for time-sharing:

KRONOS: 300 baud service 754-1115
110 baud service 754-3651

OS-3: 110 baud service 754-1111
300 baud service 754-3536

USAGE INFORMATION

OPERATING STATISTICS

	December	January
Batch Logons	11505	10160
Teletype Logons	35611	32930
Total TTY Console Hours	9795	8844
Total CPU Hours	227.82	225.62
Batch CPU Seconds	187893.02	215285.61
TTY CPU Seconds	632244.05	596928.49
OS-3 Hours	455	455
Average Number of Users		
Saturdays	21	14
Sundays	25	18
Weekdays	38	32
CPU/Hour/TTY User	64.6	67.5
Average Job Time (Sec.)	17.41	18.85

EDUCATIONAL ACTIVITIES

TUTORIALS AND SHORT COURSES

The following series of tutorials and short courses will be offered by the Computer Center during the Spring Term.

CYBER

Introduction to CYBER 73 and KRONOS

Introduction to FORTRAN on the CYBER

GENERAL (New Users)

Introduction to Computer Center Services, the role of Computers in Instruction

OS-3

Use of SIPS - Statistical Interactive Programming System

If you are interested in attending a tutorial please fill out and return the form on the last page of this newsletter.

CONDUIT/OREGON - EDUCATIONAL COMPUTING SERVICE

CONDUIT/Oregon is planning on forming several academic advisory groups to help promote the development and distribution of Computer-based Educational Materials, CBM. The purpose of these groups are the following:

* To serve as reviewers for materials library
* To search for and suggest new materials for library
* To contribute reviews for literature section of the Instructional Computer Materials Catalog (CMC)
* To author educational documentation of programs
* To suggest, design, and sponsor workshops on materials.

Some of the products from these groups will be the following:

* A literature section of CMC
* Documentation of programs
* Case study reports on materials adopted
* Status reports for newsletter
* Workshop leaders

If you would like to participate or would like more information contact JoAnn Baughman, Conduit Coordinator at 754-2494.

Return to: JoAnn Baughman
Computer Center
Oregon State University
Corvallis, OR 97330

COMPUTER CENTER

TUTORIAL REGISTRATION FORM

Spring, 1975

The tutorials are limited to the first 20 applicants per session. There are no charges or registration fees for these tutorials.

NAME: _____ DATE: _____

ADDRESS: _____

_____

I wish to attend the following tutorial(s). Indicate by tutorial name and section.

To help the instructors tailor the tutorial to your needs, please fill in completely for each tutorial.

Tutorial	Beginner	Intermediate To Advanced
3300 SIPS		
GENERAL (New Users) Introduction to Computer Services. The roll of Computers in Instruction		
CYBER 73 Intro. to KRONOS		
Intro. to FORTRAN Extended		

Please list the languages you have experience in: _____

_____

Is your purpose for taking these tutorials based on a Research or Instructional need? _____

Oregon State University
Computer Center
Corvallis, OR 97331

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March/April, 1975

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GENERAL INFORMATION

CYBER CONVERSION

In recognition of the fact that many research users are finding the conversion to the CYBER to be a time-consuming and expensive process, a limited amount of unsponsored research funds is being made available to assist in the conversion. Forms to apply for these funds are available at the Main Office of the Computer Center, MCC 217.

OS-3 AND FORTRAN VIDEOTAPES

Spring Term, 1975

Introduction to OS-3

April 14, 15, 16	CABLE CHANNEL 11	3:30-4:30 pm	K108J
April 17	CABLE CHANNEL 11	3:30-5:30 pm	K108J
April 14, 15, 16 April 17, 21	CABLE CHANNEL 5	10:00-11:00 pm	K108E

Introduction to FORTRAN

April 21, 22, 23	CABLE CHANNEL 11	3:30-4:30 pm	K108J
April 24	CABLE CHANNEL 11	3:30-4:30 pm	K108J
April 28, 29, 30	CABLE CHANNEL 11	3:30-4:30 pm	K108J
May 1	CABLE CHANNEL 11	3:30-5:30 pm	K108J
April 22, 23, 24	CABLE CHANNEL 5	10:00-11:00 pm	K108E
April 28, 29, 30	CABLE CHANNEL 5	10:00-11:00 pm	K108E
May 1, 5, 6, 7	CABLE CHANNEL 5	10:00-11:00 pm	K108E

CYBER DIAL-UP NUMBERS

New dial-up number for CYBER are:

110 baud 754-3761

300 baud 754-3781

Old numbers will be transferred back to OS-3 on or about April 15.

PAL MANUAL AVAILABLE

The 3300 PAL manual has been updated and is available from Gayle in Room 140 of the Computer Center. For additional details, see Alan Jeddeloh in Room 120 in the Computer Center.

NEW 841 DISK ON THE 3300

The new 841 disk will be replacing the 814 on Sunday, April 5. This increases the available file space by about 25%. The 841 is two times faster than the 814. This will greatly improve the response time on the OS-3 time-sharing system.

INSTRUCTIONAL USE ON THE CYBER

Instructional users are encouraged to utilize the CYBER facility for instructional programming classes or for batch oriented classroom applications of the computer. This will relieve the load on the 3300.

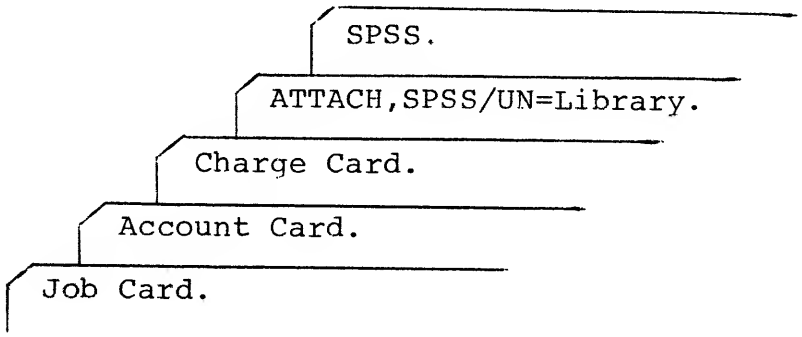
SOFTWARE

SPSS

The Statistical Package for the Social Sciences (SPSS) has been installed on the CYBER and is now available for public use. This system was developed at Stanford University in an effort to simplify the process of data analysis for social scientists so that they can perform extensive manipulation and analysis of data without extensive technical knowledge of computer systems.

Oregon State's version of SPSS came from Northwestern and was converted to the CYBER by Jeff Ballance. The system is batch oriented and provides descriptive statistics, simple frequency distributions and cross tabulations. It also contains procedures for simple correlations, partial correlations, multiple regression, factor analysis and Guttman scaling.

The manual, SPSS Version 5.8 Update Manual is available through the bookstore for $3.00. Following is an example of the deck setup for using SPSS.



ARAND ON THE CYBER

The OS-3 ARAND System is now available on the CYBER. It is a package of (primarily) FORTRAN subroutines and main programs performing a variety of types of time series analysis, along with fairly comprehensive graphics support routines. The system is modular in design with the subroutines comprising computational or graphics "blocks", and with the main programs conversational in nature, supporting a relatively common computational problem or streamlining a fairly complex one.

There are three volumes, each containing a number of new routines and analysis capabilities. There are approximately one hundred routines and numerous analysis techniques. They are best surveyed by scanning sections three and four of Volume III. The former indicates additions documented in Volume III, while the latter section describes cumulative analysis capabilities of the previous two publications.

The manuals are available in Room 140 of the Computer Center. To use ARAND on the:

```
CYBER - ATTACH,ARAND/UN=LIBRARY
        LOAD, MAINPROG,ARAND
           -Where MAINPROG is your compiled FORTRAN
            calling program.

OS-3  - LOAD,56,L=*ARAND
        RUN
```

USER OPERATIONS & SERVICES

CONSULTING AND USER SERVICES

The Computer Center provides consulting and user services in the areas of Administration, Research, Application Programming and Instruction.

Consulting

The Center provides consulting for KRONOS users in Room 211 of the Computer Center on Monday through Thursday from 1:30 p.m. to 4:30 p.m. The phone extension is 2126. Consulting for SIPS is available in Batchelor 300 on Monday through Thursday from 9:30 a.m. until 11:30 a.m. The SIPS consultant can be reached at extension 2954.

The Center staff includes professional programmers and consultants who can assist users. Contact Ron Davis at x2494 to learn more about these services.

Production Control

A free service is available which allows users to pre-schedule regular runs for routine jobs. Arrangements can be made through Ron Davis at extension 2494.

Card Punching

In addition to the free keypunches available to users in room 201 of the Computer Center, the Center provides a keypunch service for a fee. For information call x1764.

Requests for Computer Time

Call at the Accounting Office for computer time information and applications. The extension is 3483.

Newsletter

A Computer Center Newsletter which contains information of current interest to users, is published six times a year. Call Sue Mills at x2494 for a free subscription.

CDC Manuals

Manufacturer manuals for hardware and software are available in the OSU bookstore.

Computer Center Writeups

Documentation for imported and locally generated software, written by Center staff is available in room 142 of the Computer Center.

Instructional Support

The Center provides instructional support to faculty using the Computer in the classroom. This includes maintaining an instructional program library, the acquisition through departments and implementation of instructional systems or programs, and faculty training in the use of Computer-based curriculum materials. The Center also provides short courses on programming languages and supported systems throughout each term. For more information call 2161, 2494 or contact the Conduit staff in Batchelor 300.

REMODELED TERMINAL ROOM

The users' terminal room at the Computer Center has been remodeled. The new facilities have increased the room's capacity to 21 terminals from the 10 terminals available under the old set up. In addition, each teletype is enclosed in its own individual carrel which has both lowered the noise level and provided a space where the user can place his materials while using the terminal.

I/O PROBLEM REPORTING

A formal reporting system has been initiated for Computer Center users who encounter problems with input and output handling procedures. I/O PROBLEM REPORT forms are available at both the I/O counter and the Computer Center Office. These forms should be used to report any lost or mishandled input or output.

If problems are reported as they occur it is our hope that their source can be identified and eliminated. Users can expect prompt action on any reported problems.

SMALL JOB KEYPUNCHING

The Computer Center keypunch staff has been organized to allow one keypunch operator to be available for punching on small job (200 cards or less) each day. The jobs will be handled on a first come first served basis and the operator will attempt to complete all jobs in 24 hours or less. This should eliminate the long turn around time for small jobs during peak keypunch loads.

NEW PROGRAMMING, KEYPUNCH, AND TAB EQUIPMENT RATES

Effective July 1, 1975, the following rates will be in effect:

Keypunch/Verifying	$ 7.75/hour
Interpreter	7.50/hour
Burster and Decollator	7.50/hour
IBM 083 Sorter	7.50/hour with operator
	2.00/hour without operator
Clerical	6.00/hour
Programmer	7.00/hour
Senior Programmer/Programmer Analyst	10.50/hour
Senior Analyst/Analyst	14.00/hour

EDUCATIONAL ACTIVITIES

COMPUTER CENTER SHORTCOURSES

The following shortcourses will be offered Spring term. They will be in the Computer Center Conference Room and will be limited to 20 participants. Please return the form found on the back of the newsletter if you are interested in attending any of these sessions.

CYBER Shortcourses

1. Introduction to KRONOS 2.1 — April 28 — 3 p.m.
   - Job Numbers - Validation and Control
   - Manuals
   - Languages and Systems Available
   - Batch Processing
     - Control card format
2. FORTRAN Under KRONOS 2.1 — April 30 — 3 p.m.
   - Parameters and Options Available
   - Creating Files
   - Reading and Writing Files
3. Magnetic Tape Usage Under KRONOS 2.1 — May 1 — 3 p.m.
   - Tape Formats
   - Reading and Writing Tapes
4. Interactive Computing Under KRONOS 2.1 — May 5 — 3 p.m.
   - Text Editor
   - Editor
   - FORTRAN

5. Libraries Under KRONOS 2.1 — May 7 — 3 p.m.

   Creating Binary Files
   Loader
   System Libraries
   User Libraries
   Program Libraries

6. Modify and Debug Under KRONOS 2.1 — May 12 — 3 p.m.

   Maintaining and Debugging Programs
   Procedures

OS-3 Shortcourses

1. SIPS - 4 Sessions	April 28	10:30 a.m.
	April 30	10:30 a.m.
	May 5	10:30 a.m.
	May 7	10:30 a.m.
2. Introduction to Computer Center Services	May 6	10:30 a.m.

COMPUTER INSTRUCTIONAL TIME USAGE

The following is the usage of computer instructional time for Winter, 1975:

School/Dept.	Number Courses	Number Students	Amount Used
Agriculture	7	228	$ 2,415.71
Business	25	1664	8,370.80
Education	3	69	163.40
Engineering			
Ag Engr	4	70	2,759.51
Chem Engr	6	190	5,182.83
Civil Engr	8	271	2,474.16
Elec & Comp	15	493	5,795.41
Ind & Gen	13	573	8,391.03
Mech	15	340	1,909.89
Nucl	10	180	2,727.32
Forestry	9	420	886.87
Health & PE	1	1	
Home Economics	2	26	18.31

COMPUTER INSTRUCTIONAL TIME USAGE (cont.)

School/Dept.	Number Courses	Number Students	Amount Used
Liberals Arts			
Anth	4	200	783.90
Econ	3	64	745.33
Poli Sci	5	141	77.60
Psych	4	260	928.35
Soc	2	75	235.65
Oceanography	4	74	463.04
Pharmacy	1	20	
Science			
Atmos Sci	2	8	51.92
BioCh & BioPh	1	15	279.15
Botony	4	481	550.21
Chemistry	7	198	1,069.88
Comp Sci	12	680	16,216.77
Geography	5	130	296.25
Geology	1	30	48.89
Math	6	205	2,616.71
Physics	13	1040	1,237.98
Statistics	14	845	8,908.50
Zoology	1	35	203.98
TOTALS	207	9026	$ 75,709.35

USAGE INFORMATION

OPERATING STATISTICS

	February	March
Batch Logons	15822	14446
Teletype Logons	45840	45296
Total TTY Console Hours	13283	13752
Total CPU Hours	233.61	285.01
Batch CPU Seconds	175522.90	271482.65
TTY CPU Seconds	665489.61	754537.67
OS-3 Hours	411	455
Average Number of Users		
Saturdays	25	34
Sundays	31	44
Weekdays	45	47
CPU/Hour/TTY User	50.1	54.9
Average Job Time (Sec.)	13.64	17.17

Computer Center

Spring Term Shortcourses

Please check the courses that you wish to attend. These are limited to the first 20 applicants per session. There are no charges or registration fee for these shortcourses.

KRONOS

☐	1. Introduction to KRONOS	April 28	3 p.m.
☐	2. FORTRAN Under KRONOS 2.1	April 30	3 p.m.
☐	3. Magnetic Tape Usage	May 1	3 p.m.
☐	4. Interactive Computing	May 3	3 p.m.
☐	5. Libraries Under KRONOS	May 7	3 p.m.
☐	6. Modify and Debug	May 12	3 p.m.

OS-3

☐	1. SIPS 4 Sessions	April 28, 30, May 5, 7	10:30 a.m.
☐	2. Introduction to Computer Center Services	May 6	10:30 a.m.

Please return to: JoAnn Baughman
Computer Center
Oregon State University
Corvallis, OR 97330

Oregon State University
Computer Center
Corvallis, OR 97331

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GENERAL INFORMATION

PLATO TERMINAL ON CAMPUS

Two Plato Terminals will be on campus June 23 through July 11, through the cooperation of the Computer Center, CONDUIT, and the OSU College and University's Teaching Project. These terminals were made available to OSU by the University of Illinois and Control Data Corporation. If a faculty or Department is interested in using these terminals or in arranging a demonstration contact JoAnn Baughman at x2161 or Joanne Hayes at x2494.

NEW PERSONNEL - UDAY MADIMAN AND DAN BERG

The Center welcomes two new staff members. Uday Madiman joined the Computer Center on May 19 as Business Manager. Dan Berg joined the Center on June 2 as Supervisor of Machine Operations.

TOM YATES TAKING SABBATICAL LEAVE

Tom Yates, Manager of Administrative Systems Development, is departing in July for a year's sabbatical leave. He has accepted an invitation from Western Australia Institute of Technology (Perth) to develop an Academic Records System while serving as a Visiting Systems Analyst.

During Tom's absence Tony White will serve as Acting Manager of Administrative Systems Development.

CONTROL DATA MANUAL REVISIONS

Revision "G" for the Publication 60305600, FORTRAN Extended Reference Manual, Version 4. and revision "G" for the publication 60307300, CYBER Record Manager Version 1 7000 Record Manager Reference Manual have been released. They should be available through the OSU Bookstore.

COMPUTER CENTER HOLIDAY

The Computer Center will be closed on Friday, July 4th. There will be regular hours for the weekend.

NEW FAST QUEUE LIMITS

The time limit and scratch limits for OS-3 jobs submitted to the fast queue have been increased to 30 CPU seconds, and 100 scratch file blocks.

SOFTWARE

OS-3 ADDITIONS

On Saturday, May 10, a new version of OS-3 was released. Several new features are incorporated in this release.

There are five new control mode commands. They are: TERMINAL, LOGIN, ATTACH, DETACH, and DELAY.

TERMINAL (Good whether logged in or not)
Prints a line in the form:
MM/DD/YY - HH.MM.SS - terminal LLL PPPX.
LLL is the logical terminal number assigned by the system.
PPP is the physical terminal number of the teletype port.
X is the multiplexor number for the teletype port.

LOGIN (Good from teletype only)
After the user hits CTRL,A, typing LOGIN causes control-mode to blot out several characters on a line to allow the user to type in his job/user number without it being readable by anyone else.

DETACH (Good from teletype only)
Disassociates the physical teletype from the logical terminal for up to five minutes. Allows user to move from one terminal to another without logging off.

ATTACH (User must be logged on the terminal)
Relinks current terminal to some detached job. It causes the user to be logged off (without giving him a logoff message) and relinked to the detached terminal. Type ATTACH,LLL where LLL is the logical terminal number.

DELAY,<number>
This command controls the time delay between the carriage-return line-feed, and the next printing character on teletype output. Users who have terminals with slow carriage returns can use this command to delay the printing of lines until the terminal is ready. <number> must be one digit between zero and seven. The default value is zero (no delay).

FOUR NEW TERMINAL FEATURES (OS-3)

1. A slash (/) carriage control, when used on a teletype, will cause the next read to input from the same line as the write. This is a useful feature for conversational programs and saves teletype paper.
2. A teletype ASCII write is now available. By setting Bit 19 of Q (word count) on a write, OS-3 will decode the output words into two 12-bit ASCII characters per word.
3. SYSTAT, a program to allow users to monitor the batch and output queues of the system, is now available. For more information, type SYSTAT. When the system responds, type HELP.
4. Logical unit 100 is the standard input unit from all terminals, just as it has been; but unit 101 is now the standard output unit. It is equipped to the users' TTY or TV for remote terminals, and to the line printer for batch jobs.

NEW CONTROL MODE ERROR MESSAGES (OS-3)

BUSY - When attempting to log in, if there is no room in the system to allow more users to log on, a user will get BUSY whenever he types CTRL-A.

UNABLE TO SWAP IN - Indicates that the system had an irrecoverable disk error during swap processing for that user (formerly listed as "Memory Parity Error"). The user will have to restart his job.

OFF END OF TAPE - LUN X - Indicates a tape operation caused the drive to read off the end of the magnetic tape.

BLANK TAPE - LUN X - A read operation on magnetic tape read past the end of the data on the tape.

(The preceding two error messages replace the old DRIVE FAILURE, and indicate an error in the user's program. The job will have to be corrected and resubmitted.)

NEW COPY PARAMETER (OS-3)

A new parameter has been added to COPY. By including an "N" in the COPY parameter string, the user will receive a count of the number of records copied.

SYSTEM EXECUTIVE REQUESTS

There are five new executive requests available to the user. They are: Date, Time of Day, Wall Clock Time, Error Code and Status. A description of these are available from Gayle in Room 140 of the Computer Center.

LIBRARY UTILITIES FOR KRONOS

A new library UTILITY is available on the LIBRARY user number. Routines available on the library include:

FORMS - Provides for directing a message to operator requesting special action on a file to be punched or printed.

TUNIT - Provides for complete error and status checking on buffered tape operations.

CHARLIB - a group of routines for character and bit manipulation.

Write-ups on these routines may be obtained through Gayle in Room 140 of the Computer Center.

KRONOS COMMANDS

The default value for the Submit command parameter Q has been changed from N to B. (See Kronos 2.1 Reference Manual pp. 5-16) Under the new default the job's output will be printed and/or punched at the central site.

FORMS CONTROL COMMAND

A new command, FORMS, has been installed to allow a message to be displayed to the operator when a file is printed or punched. The form of the command is:

FORMS(LFN,CODE) Optional comment to the operator.

Where LFN is the local file name on which the message is written and CODE is the appropriate code for the desired forms. A list of the forms codes may be obtained from the operations staff.

BANNER

A new Kronos command, BANNER, has been added which allows output DISPOSED to the printer to be labeled with the user's name. The format of the command is:

BANNER(lfn) Comments for the banner page

where lfn is the local file which is to be disposed. The comment may be up to 24 characters long and will appear in block characters below the job name on the banner page.

Primary batch output may also have a user supplied label. This label will be taken from the comments field on the job card.

The comment must begin before column 40 and be terminated with a period. An example would be:

```
JOBNAME,CM55000,T10.  PUT ON MY SHELF.
```

USER OPERATIONS & SERVICES

NEW TAPE EQUIPPING PROCEDURES SEPTEMBER FIRST

Beginning September 1, 1975, new tape equipping procedures will be implemented on OS-3. Tape equip requests will include a new parameter to indicate if the tape is to be Write Enabled or Read only.

For equipping tapes with OS-3 control cards, the form will be:

For Write Enabled Tapes:

```
7
8EQUIP,99=MT,1234,AT 556,W    <comments>
```

For Read Only:

```
7
8EQUIP,99=MT,1234,AT 556,R    <comments>
```

Note that if the Read or Write parameter is omitted, the default value is to Read only. Also, comments to the operator will no longer need to include a message about Read/Write status.

FORTRAN users should be able to use the EQUIP routine as they have been, but users of the TEQUIP routine will have to change their "comments to operator". The first character of the comments should be a "W" for write enable or "R" for Read only, followed by a comma and then any other comments.

Users of assembly language routines or other specialized software should follow the same procedures as listed for TEQUIP users above.

Users with questions or needing further assistance should contact Guy Lauterbach.

REVISED PLOTTER CHARGES

Plotter charges have been reduced to 12 cents/record. However, users are now charged at the rate of 15 cents/foot of plotter paper used. This accounting is not reflected in LOGOFF charge message, but appears in the monthly billing.

NEW PROGRAMMING, KEYPUNCH, AND TAB EQUIPMENT RATES

Effective July 1, 1975, the following rates will be in effect:

Keypunch/Verifying	$ 7.75/hour
Interpreter	7.50/hour
Burster and Decollator	7.50/hour
IBM 083 Sorter	7.50/hour with operator
	2.00/hour without operator
Clerical	6.00/hour
Programmer	7.00/hour
Senior Programmer/Programmer Analyst	10.50/hour
Senior Analyst/Analyst	14.00/hour

LOCAL TERMINALS TO 3300 OR CYBER

Local terminals currently connected to OS-3 through the patch panel in the I/O room may be connected to Kronos by so specifying to the I/O clerk when requesting that the terminal be connected.

EDUCATIONAL ACTIVITIES

FACULTY WORKSHOP TO BE HELD SEPTEMBER 8-12, 1975

Oregon State University Computer Center will again sponsor a Faculty Workshop September 8-12, 1975. The workshop is intended for all who are engaged in undergraduate education, including universities, four-year colleges, and two-year colleges. The workshop will provide an opportunity for college and teaching faculty to increase their skills related to the use of the computer. It will provide a regional forum for the presentation, discussion, and dissemination of ideas, programs, and other curricular matters dealing with the use of the instructional uses of computers. Those attending this workshop need not have a background in computers. An attempt has been made to meet the needs of those with no background as well as those who have used the computer in some way. The purpose of this workshop is threefold:

1) To provide basic training in the development of computer skills in FORTRAN, BASIC, etc., on the OS-3 time-sharing system and the Kronos 2.1 Operating System.

2) To provide training in the development of user skills which will facilitate use of the computer within an academic area. These include the use of the plotter, files, *Catalog programs, OSCAR, SPSS, ARAND, SIPS and Library programs for both the CYBER 73 and the 3300.

3) To provide instruction and examples of the in-class use of computer curriculum modules in specific disciplines.

If you are interested in receiving more information or in attending this workshop, please return the form on page 11.

USAGE INFORMATION

OPERATING STATISTICS

	April
Batch Logons	9467
Teletype Logons	37402
Total TTY Console Hours	10338
Total CPU Hours	270.35
Batch CPU Seconds	251012.77
TTY CPU Seconds	722236.92
OS-3 Hours	441
Average Number of Users	
Saturdays	21
Sundays	27
Weekdays	37
CPU/HOUR/TTY User	69.9
Average Job Time (Seconds)	20.77

TEN GOOD REASONS WHY COMPUTERS CAN...

A computer can do more work than a man.
One reason that's little known
Is that it never has to stop
To answer the telephone.

A computer can do more work than a man.
One more way to explain
Is that it doesn't stop it's work
To argue and complain.

A computer can do more work than a man.
Because it never takes
Those dawdling, lengthy lapses
That we call coffee breaks

A computer can do more work than a man.
And it's easy to see why.
It doesn't sit with its chin on its hand
And watch the girls prance by.

A computer can do more work than a man.
One reason it's such a whiz:
It doesn't buttonhole passersby
To tell them how busy it is.

A computer doesn't take nervous pills
All day at the water fountains,
And wastes no time with molehills
Making them into mountains.

A computer can do more work than a man.
Because, I have a hunch
It doesn't spend three hours
With a customer at lunch.

A computer can do more work than a man.
And one good reason I've seen is
It doesn't spend the afternoon
Half-conscious from martinis.

A computer can do more work than a man.
And partly it's a matter
Of not spending all day angling
For the next job up the ladder.

A computer can do more work than a man.
Here's a final explanation:
It wastes no time on fears of being
Replaced by Automation.

Author Unknown, AEDS Monitor, March, 1975

STATEMENT OF INTEREST
FOR THE FALL COMPUTER INSTITUTE

Oregon State University
September 8-12, 1975

Please Return to:

JoAnn Baughman
Computer Center
Oregon State University
Corvallis, OR 97330

NAME: _____ DATE: _____

INSTITUTION: _____

DEPARTMENT: _____

SUMMER MAILING ADDRESS: _____
(If different)

_____

For scheduling purposes, please indicate the sessions you would be interested in attending:

Operating Systems

☐ Kronos (CYBER 73) ☐ OS-3 (CDC 3300)

Editing and Interactive Computing

☐ CYBER 73 ☐ CDC 3300

FORTRAN

☐ CYBER 73 ☐ CDC 3300

☐ Beginner ☐ Intermediate ☐ Advanced

Statistical Systems

☐ SPSS (CYBER 73) ☐ SIPS (CDC 3300)

Simulation Languages

☐ EXPERSIM ☐ GPSS

Graphics

☐ KRONOS ☐ OS-3

Interactive Languages

☐ BASIC ☐ OSCAR ☐ APL

Miscellaneous

☐ Computer Assisted Instruction

☐ ARAND (Time Series Analysis and Numerical Modeling)

Other: _____

Please return by July 18, 1975

There will be a nominal charge for this workshop.

Oregon State University
Computer Center
Corvallis, OR 97331

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Corvallis, OR

ADDRESS CORRECTION REQUESTED

OREGON STATE UNIVERSITY
COMPUTER CENTER NEWSLETTER

Corvallis, Oregon
(503) 754-2494

Volume X, Number 4
July/August, 1975

Director: Larry C. Hunter

Editor: JoAnn Baughman

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GENERAL INFORMATION

A NOTE TO COMPUTER CENTER USERS

We're sure you've noticed recent changes around the Computer Center and more are on the way. Some of these changes will be obvious and others will not be visible to you. The reasons are simple - we are growing and want to be able to serve you better.

Recent Happenings

The old "User Keypunch Room" (201) has become our new "Tab Room". This room houses our sorter, interpreter, burster, deleavers and optical scanning equipment.

The keypunches have been moved into the old "Staff Terminal Room" (211). This will now be the new "User Work Room". This will provide a centralized area where a user can work, keypunch or talk to a system's consultant. The keypunches have been placed in individual carrels that provide more privacy and a quieter atmosphere.

Current and Future

There will be a number of changes in our I/O and computer operations area:

a. Glass walls will be disappearing and the old "Viewing Room" will become the new Plotter/Peripheral room. Viewing will be available on the corner of the SW hall.

b. The old "User Set-Up Room" will become our new "Input/ Output Room".

c. A consolidated magnetic tape library will move into the area left by the old "I/O Room".

As other changes occur and improved service becomes available we'll keep you posted. In the meantime if you have problems, questions, or suggestions please contact Dan Berg, x3584.

PLATO TERMINAL ON CAMPUS

The Plato Terminal will be on campus through September 13, through the cooperation of Control Data, the Computer Center, CONDUIT, and the OSU College and University's Teaching Project. This terminal was made available to OSU by Control Data Corporation. If a faculty member or Department is interested in using this terminal or in arranging a demonstration contact JoAnn Baughman at x2161 or Joanne Hayes at x2494.

COMPUTER CENTER DIRECTORY

DIRECTOR, Larry C. Hunter	754-2494
OPERATIONS, Ron Davis	754-2494
ACADEMIC SERVICES, JoAnn Baughman	754-2953
ADMINISTRATIVE SYSTEMS, Tony White	754-2494
SYSTEMS SOFTWARE, Jeff Ballance	754-2494
COMMUNICATIONS AND HARDWARE, Jim Fryklund	754-2494
COMPUTER OPERATIONS	
Accounting	754-2638
Job Numbers	754-3483
I/O Room	754-3584**
Terminal Connect	754-2033*
Terminal Maintenance	754-2494
CONSULTING SERVICES	
CYBER (1:30-4:30 p.m., Except Friday)	754-1650
OS-3 (1:00-5:00 p.m. Monday-Friday)	754-1650

* Extension 2033 will be reserved for user calling to connect terminals to either the CYBER or the 3300.

**Extension 3584 should be used for all other calls to the I/O Room.

NEW PERSONNEL - MICHAEL MC QUEEN

The Computer Center welcomes Michael McQueen as Business Manager as of August 18, 1975. Previous to joining OSU Mike was with the Executive Department Budgets Division. Mike will be responsible for all Accounting and Business Service functions of the Computer Center.

COMPUTER CENTER CLOSED SEPTEMBER 5-7

The Computer Center will be closed to allow the Physical Plant to work on the air-conditioning equipment for the weekend beginning at 5 p.m. Friday, September 5 through Sunday September 7. Services will resume Monday, September 8 at 7:30 am.

COMPUTER CENTER CLOSED ON LABOR DAY

The Computer Center will be closed for Labor Day, Monday, September 1, 1975.

NEW REVISIONS FOR CYBER MANUALS AVAILABLE

The following CYBER revisions should be available through the OSU Bookstore.

CDC Tranex Ref. Man. - Rev. C. 60407900
CDC Update Ref. Man. - Rev. F. 60342500
KRONOS 2.1 Export/Import Ref. Man. - Rev. E 59150500
CDC Modify Ref. Man. - Rev. F 60281700
CDC KRONOS 2.1 Text Editor Ref. Man. - Rev. C 60408200
Pert/Time Ref. Man. - Rev. B 60131100

SOFTWARE

KRONOS PRODUCT UPDATE

The project sets on KRONOS have been updated to level 404. Users who have experienced problems may wish to see if they still exist. Problems encountered with the KRONOS operating system or products should be reported on the CYBER SYSTEM REPORT FORM for the Systems staff.

A NEW FEATURE ON COPY (OS-3)

A new feature has been added to COPY. The F parameter, which is used for file-mark count, now has a new form. If it is specified as F(n), where n is a number, COPY will transfer all records and file marks until it encounters n consecutive file marks on the input unit. This is handy for people with tapes containing many files, all separated by file marks and terminated by 2 or more consecutive file marks. The old form of the F parameter, F=n, will continue to work as before.

COMPLOT ON KRONOS

The conversion of the OS-3 COMPLOT plotting package to KRONOS has been completed. The COMPLOT routines provide plotting capabilities on the Tek 4002, Tek 4010, HP 7200, Calcomp 1627 II, and Gerber plotting devices. A few minor differences exist between the OS-3 and KRONOS versions which are detailed in an appendum to the COMPLOT USER'S MANUAL which is available from Gayle Zandofsky room 140.

NEW LOADER AVAILABLE ON KRONOS

A link loader has been obtained through Tektronix and installed as XLINK. XLINK allows the specification of multiple files for binary decks and libraries and more concise maps for terminal users. Documentation may be obtained from Gayle room 140.

TIDY NOW AVAILABLE ON CYBER

TIDY is a FORTRAN computer code that renumbers and edits other FORTRAN source programs whose statement numbering has become unwieldy and whose readability has deteriorated as a result of the many revisions, patches, and corrections that are typical of reworked programs. TIDY processes programs routine by routine and punches new versions with the following characteristics: 1) all statement numbers increase in consecutive order; 2) only statements referred to by other statements retain statement numbers; 3) all statement number references are updated to conform to the numbering scheme; 4) all FORMAT statements are collected and appear at the end of each routine; 5) all FORMAT and CONTINUE statements that are not referenced are deleted; 6) blanks are inserted into the FORTRAN statements to improve the readability of the statements, while excessive blanks in the statements are deleted; 7) comments are processed to delete excessive blank comments and to eliminate comments from the FORTRAN statement number and continuation fields; 8) all cards are labeled with a unique letter and number combination; and 9) DO LOOPS are indented for structured listing. In addition, TIDY may be used to convert CDC-3300L Mass Storage FORTRAN programs into USASI FORTRAN.

TIDY is entirely written in USASI FORTRAN and accepts and processes all USASI FORTRAN statements as well as some IBM and CDC dialect statements.

TIDY processes approximately 2500 cards per CPU minute, compared to 200 cards for TIDY on OS-3. Contact Phil Brown at x2494 for further details.

Call sequence for CYBER TIDY:

```
GET,TIDY/UN=3OPRPHI.
TIDY.
```

Note: This call will use the standard file names for Input, Output and Punch. To use existing files, their name should be substituted in the appropriate places:

```
TIDY,<Input>,<Output>,<Punch>.
```

USER OPERATIONS & SERVICES

LOCAL TERMINALS TO 3300 OR CYBER

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For equipping tapes with OS-3 control cards, the form will be:

For Write Enabled Tapes:

```
7
8EQUIP,99=MT,12345,AT 556,W    <comments>
```

For Read Only:

```
7
8EQUIP,99=MT,12345,AT 556,R    <comments>
```

Note that if the Read or Write parameter is omitted, the default value is to Read only. Also, comments to the operator will no longer need to include a message about Read/Write status.

FORTRAN users should be able to use the EQUIP routine as they have been, but users of the TEQUIP routine will have to change their "comments to operator". The first character of the comments should be a "W" for write enable or "R" for Read only, followed by a comma and then any other comments.

User of assembly language routines or other specialized software should follow the same procedures as listed for TEQUIP users above.

Users with questions or needing further assistance should contact Guy Lauterbach.

OS-3 AND KRONOS FILE PURGES

Users are reminded that files on OS-3 and KRONOS not referenced for more than 60 days are subject to purging. Purges will not be announced but will be made regularly at least once a quarter. Purged files will be available on special backup tapes for approximately one year from the time of purging. To examine lists of purged files or to recover purged files, please contact Ron Davis at x2494.

LARGE JOBS FOR THE CYBER

Users with jobs having large central memory requirements (more than $125K_8$) may schedule them to be run after normal operating hours. Users should schedule such jobs at least 24 hours in advance with Dan Berg x3584.

TAPE LIBRARY CHANGES

During the next few weeks the Private and Rental magnetic tape libraries will undergo some procedural and physical changes due to the increased growth experienced over the last year. We will be adapting a new 5 digit, color-coded labeling system to provide for unique tape identification. Tapes will be assigned new numbers according to reel size:

Private Tapes:	10,000 - 10,199	200' and 600'
	10,200 - 10,399	1200'
	10,400 - 10,999	2400'
Rental Tapes:	11,000 - 11,999	200' and 600'
	12,000 - 12,999	1200'
	13,000 - 14,999	2400'

A cross reference system will also be established to provide a full audit trail of tapes located on site.

Users will be notified of their new tape numbers and of related procedural changes for sign-in/sign-out and EQUIPing.

PRIVATE TAPE CHARGES

As of October 1, 1975 the storage fee for a tape in the Private Tape library will increase from $ .50 to $1.00.

EDUCATIONAL ACTIVITIES

NEW CONDUIT GRANT

CONDUIT has received a new grant from the National Science Foundation to promote the packaging and exchange of computer-based curricular materials. The new grant provides first-year funding to CONDUIT/Central, located at the University of Iowa, for a three-year effort to broaden its base of participants by adding new members and to distribute a significant number of certified packages. Institutions in Oregon will continue to be represented in the CONDUIT consortium by OSU. Larry Hunter, Director of OSU Computer Center, serves on the Policy Board. Oregon expects to import some CONDUIT packages this year and continue our development of packages in support of this national effort. If you have an interest in a particular package for classroom use, please contact JoAnn Baughman, CONDUIT/Oregon Curriculum Coordinator.

FACULTY WORKSHOP TO BE HELD SEPTEMBER 8-12, 1975

Oregon State University Computer Center will again sponsor a Faculty Workshop September 8-12, 1975. The workshop is intended for all who are engaged in undergraduate education, including universities, four-year colleges, and two-year colleges. The workshop will provide an opportunity for college and teaching faculty to increase their skills related to the use of the computer. It will provide a regional forum for the presentation, discussion, and dissemination of ideas, programs, and other curricular matters dealing with the use of the instructional uses of computers. Those attending this workshop need not have a background in computers. An attempt has been made to meet the needs of those with no background as well as those who have used the computer in some way. The purpose of this workshop is three fold:

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2) To provide training in the development of user skills which will facilitate use of the computer within an academic area. These include the use of the plotter, files, *Catalog programs, OSCAR, SPSS, ARAND, SIPS and Library programs for both the CYBER 73 and the 3300.

3) To provide instruction and examples of the in-class use of computer curriculum modules in specific disciplines.

If you are interested in receiving more information or in attending this workshop, please return the registration form on page 11.

COMPUTER CENTER FAIR--MINI-HARDWIRE

Throughout fall term, the Oregon State University Computer Center and CONDUIT will offer mini-hardwire fairs. These will provide you with an opportunity to observe the instructional materials and the system response offered by other computer centers throughout the United States. Universities which may participate in this mini-hardwire fair are the University of Texas at Austin, Dartmouth College, North Carolina Educational Computing Services, University of Iowa, Unitersity of Colorado at Boulder, Northwestern University, and University of Indiana.

The purpose of the fair is to present to the University Computer Center user community the availability, cost and capabilities of other instructional systems and to present to them the instructional software that is available on other systems.

The fair will be held in the Computer Center conference room beginning in October. The specific date and time will be announced in the next newsletter. If you wish any additional information, please call the CONDUIT staff at extension 2953.

OSU EDUCATION MEDIA WORKSHOP

Oregon State University's College and University Teaching Project sponsored a Summer Multimedia Workshop and six weeks of follow-up activities for the development and production of instructional materials. The workshop and the follow-up activities are supported by the University Instructional Media Services. These are the Computer Center, CONDUIT/Oregon, Classroom TV and Instructional Resources and Materials Center.

The workshop was held the first three weeks of summer term, 1975, and was concerned with the development of skills for faculty which will better enable them to use the Media facilities available to them at Oregon State and to facilitate the development and use of the course materials during the coming year. The workshop concentrated on a systems approach to instructional design with emphasis on the independent learning processes. Learning systems considered were computer-assisted instruction, instructional television, auto-tutorial and individually-prescribed instruction. The training program also included instruction on the teaching/learning processes of specifying goals, writing course objectives, analyzing learning tasks, developing teaching/learning strategies and formulating evaluation procedures. The workshop was coordinated through the OSU Education Media Council under the Dean of Instruction, Stuart Knapp. Dean Osterman was the workshop coordinator.

REPORT ON CCUC/6

The Sixth Conference on Computers in the Undergraduate Curriculum was held at Fort Worth, Texas in June. The sessions included presentations of new applications in Humanities, Business, Physics, Math, and Chemistry with special emphasis on CAI, CMI, Computer-generated testing and graphics.

The Proceedings of this conference (and earlier ones) are available for $10 each from: Ted Sjoerdsma, Treasurer, CCUC, 124B Lindquist Center for Measurement, Iowa City, IA 52242.

The CCUC meetings continue to be an annual focal point for exchange of information and materials for computer-based curricula. The 1976 meeting will be held in June at the Binghamton, New York campus of SUNY. The Call for Papers establishes January 15 as the deadline for submission. If you are thinking of submitting a paper, please let us know. We'll be happy to help you any way we can.

USAGE INFORMATION

OPERATING STATISTICS

	May	June	July
Batch Logons	11368	5535	4322
Teletype Logons	44384	31404	27202
Total TTY Console Hrs	11733	8560	7247
Total CPU Hours	293.43	258.44	216.23
Batch CPU Seconds	255392.94	217335.59	148827.68
TTY CPU Seconds	800962.33	713064.25	629610.52
OS-3 Hours	455	441	455
Average Number of Users			
Saturdays	24	15	11
Sundays	33	19	13
Weekdays	39	31	27
CPU/HOUR/TTY User	68.3	83.3	86.9
Average Job Time (Seconds)	18.95	25.19	24.69
Average Time for TTY Jobs (Seconds)	18.05	22.71	23.15
Average Time for Batch Jobs (Seconds)	22.47	39.27	34.43

REGISTRATION
FOR THE FALL COMPUTER INSTITUTE

Oregon State University
September 8-12, 1975

NAME _____ DATE _____

INSTITUTION _____

DEPARTMENT _____

SUMMER MAILING ADDRESS (if different) _____

_____

_____

For scheduling purposes, please indicate the sessions you plan to attend:

- ☐ Running Programs on OS-3
- ☐ OS-3 Graphics
- ☐ Basic (OS-3)
- ☐ OS-3 Graphics (Grafit)
- ☐ OS-3 Graphics (Plot Drive)
- ☐ OS-3 Graphics (Review)
- ☐ OS-3 Lab
- ☐ Running on KRONOS (Intro.)
- ☐ Running on KRONOS (Mag Tapes)
- ☐ Running on KRONOS (Library)
- ☐ Running on KRONOS (Modify & Debug)
- ☐ Running on KRONOS (FORTRAN)
- ☐ Running on KRONOS (Interactive)
- ☐ Graphics on KRONOS
- ☐ KRONOS Lab
- ☐ Beginning FORTRAN
- ☐ Intermediate FORTRAN
- ☐ Advanced FORTRAN
- ☐ Running COBOL on KRONOS
- ☐ Basic (KRONOS)
- ☐ FORTRAN differences between OS-3 and CYBER
- ☐ Programming for Transferability
- ☐ SPSS
- ☐ PLATO
- ☐ SIPS
- ☐ EXPERSIM
- ☐ APL
- ☐ OSCAR
- ☐ Soc./Pol. Sci./SPSS/SIPS

The charge for this workshop will be $12.00.

Please return this form by September 3, 1975, to:

Jo Ann Baughman
Computer Center
Oregon State University
Corvallis, Oregon 97331

Oregon State University
Computer Center
Corvallis, OR 97331

ADDRESS CORRECTION REQUESTED

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OREGON STATE UNIVERSITY
COMPUTER CENTER NEWSLETTER

Corvallis, Oregon
(503) 754-2494

Volume X, Number 5
September/October, 1975

Director: Larry C. Hunter

Editor: JoAnn Baughman

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GENERAL INFORMATION

RESIGNATION OF DR. L. C. HUNTER

The Computer Center announces with great regret the resignation of Dr. Larry C. Hunter as director of the Center. Dr. Hunter has asked that his resignation be effective January 1, 1976 in order that he may devote full time to private business in Corvallis.

A search committee, appointed by Dean of Administration, Milosh Popovich, will select a new director. Chairman of the committee is Dr. Lyle Calvin, Department of Statistics.

Larry Hunter has been with OSU since 1968, first as assistant director and acting director, and from January, 1970 as director. During that period the Computer Center has increased in usage and in size of operation from a system that handled approximately 30 terminals to the present, when over 250 terminals are connected to the system. A new computer, the CYBER 73, added in December 1974, has greatly increased the computing capabilities. The Center currently provides a wide range of teaching, research and administrative services for OSU and for other colleges and universities linked to the OSU computing facilities.

FREE CONSULTING SERVICE

The Computer Center provides consulting for users in Room 211 of the Computer Center Monday through Friday from 10:30 a.m. until 4:30 p.m. The consulting staff includes professional programmers and graduate assistants who can assist users with a variety of questions. The consultants cover such areas as - SIPS, SPSS, Graphics, and job control for the 3300 and the CYBER, all common programming languages.

Users requiring assistance should be prepared with specific questions. The consultants cannot provide programming services in the sense of writing programs for users, nor can they become involved in extensive program debugging for users.

Problems that are outside the scope of the Center's free consulting service will be referred to the application programming groups or the appropriate consulting group which offers programming and analysis services.

COMPUTER OPERATIONS

Computer operations, under Dan Berg, handles the customer's arrangements to use mag tapes, the disk packs and trouble reports. A customer who feels his project is due a refund because of hardware or system malfunctions, or because of an operator error, should file a trouble report at the I/O desk.

COMPUTER CENTER DIRECTORY

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CUSTOMER SERVICES (Job Numbers, etc.)	3483
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I/O ROOM	3584
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TIME SHARING SERVICES

CYBER 73	300 Baud	754-3781
	110 Baud	754-3761
3300	300 Baud	754-3651, 754-3536
	110 Baud	754-1111

ADMINISTRATIVE PERSONNEL

DIRECTOR, Dr. Larry Hunter
SYSTEMS SOFTWARE, Jeff Ballance
OPERATIONS AND PROGRAMMING, Ron Davis
HARDWARE AND COMMUNICATIONS, Jim Fryklund
ADMINISTRATIVE SYSTEMS, Tony White
INSTRUCTIONAL SYSTEMS, JoAnn Baughman
BUSINESS MANAGER, Mike McQueen

FALL TERM HOLIDAY

The Computer Center will be closed on Thanksgiving Day, November 27, 1975.

OPERATING HOURS AS OF OCTOBER 18, 1975

CYBER:	Monday-Friday	11:00 a.m. through Midnight
	Saturday	9:00 a.m. through 5:00 p.m.
3300:	Monday-Friday	7:30 a.m. through 2:00 a.m.
	Saturday	7:30 a.m. through 5:00 p.m.
	Sunday	1:00 p.m. through 5:00 p.m.

CYBER ACCOUNTING

After October 6, 1975, a total cost will be computed and printed for each batch job and terminal session. In order to be able to calculate the job cost a change was made in unit record equipment usage charging. The new rates are based on the number of pru's (640 char/pru) read, punched or printed. The new rates should result in an average lower cost for all users. The new rate schedule does not include a charge for the number of characters transmitted to and from a terminal, only the total connect time will be charged. The following new mnemonics will appear in the user's accounting messages to indicate levels of usage:

- SL,SP,SR - Central site line printer, card punch, and card reader.
- RL, RR - Remote line printer and card reader.
- WC - Terminal wall clock time.

For a complete list of the current Cyber charging schedule see CYBER RATES FOR OREGON STATE UNIVERSITY on page 17.

SOME INFORMATION ABOUT INSTRUCTIONAL COMPUTER TIME

Although instructional computer time has already been allocated for Fall term, 1975, adjustments or new requests for computer time can still be submitted by instructors through their department or school coordinators. Applications blanks are available at the Computer Center Office, MCC 217.

An explanation about the process of obtaining instructional computer time might be helpful:

A coordinator is appointed for each school or department and is responsible for collecting requests for instructional computing time from each faculty member in his unit. Request forms are submitted to the Computer Center for review. Computer time is distributed by a campus-wide Computer Committee appointed by the Dean of Administration. Adjustments or new requests are accepted if changes in enrollment occur.

SCHEDULE OF VIDEOTAPE SERIES FOR FALL TERM, 1975

The Computer Center announces the showing of introductory series of videotapes for Fall term 1975. Designed to acquaint the new user with the OSU Computer system, the "Introduction to OS-3" and the "Introduction To FORTRAN" videotapes will be shown beginning Monday, October 13. Any student or faculty member may attend the showings as listed below:

Introduction to OS-3

October 13, 14, 15	Cable Channel 11 and Kidder 108J 3:30-4:30PM
16	Cable Channel 11 and Kidder 108J 3:30-5:30PM
October 13, 14, 15 16, 20	Cable Channel 5 and Kidder 108E 10:00-11:00PM

Introduction to FORTRAN

October 20, 21, 22,	Cable Channel 11 and Kidder 108J 3:30-4:30PM
23	Cable Channel 11 and Kidder 108J 3:30-5:30PM
October 21, 22, 23 27, 28, 29, 30	Cable Channel 4 and Kidder 108E 10:00-11:00PM
November 3, 4, 5	Cable Channel 5 and Kidder 108E 10:00-11:00PM

TELETYPE RENTALS FOR DEMONSTRATIONS

The Computer Center has a few teletypes and/or acoustic couplers which may be rented on a limited-term basis. The rate schedule includes equipment rental and maintenance:

33KSR Pro-rated @ $50/month

Acoustic Coupler Pro-rated @ $15/month

There is a minimum charge of $10.

If the above equipment is not located on the OSU campus, a fee of $8/hour for travel time will be charged for the off-campus maintenance. If you have any questions, please call Doug West at x2494.

Terminal Maintenance Charges

Standard maintenance charges are:

$8/hour for teletypes, portal to portal, plus parts.

$10/hour for CRT terminals, portal to portal, plus parts.

Student teletypes are exempt from charges.

REQUESTS FOR COMPUTER TIME FOR UNSPONSORED RESEARCH

The Computer Center has a limited amount of funds available for unsponsored research computing in order to support faculty and graduate research activities which are not supported by other sources.

Application forms for unsponsored research are available in room 217 (Main Office) of the Computer Center.

SOFTWARE

KRONOS SOFTWARE

The following software packages are available on the CYBER 73.

ARAND

The OS-3 ARAND System is now available on the Cyber. It is a package of (primarily) FORTRAN subroutines and main programs performing a variety of types of time series analysis, along with fairly comprehensive graphics support routines. The system is modular in design with the subroutines comprising computational or graphic "blocks", and with the main programs conversational in nature, supporting a relatively common computational problem or streamlining a fairly complex one.

There are three volumes, each containing a number of new routines and analysis capabilities. There are approximately one hundred routines and numerous analysis techniques. They are best surveyed by scanning sections three and four of Volume III. The former indicates additions documented in Volume III, while the latter section describes cumulative analysis capabilities of the previous two publications.

The manuals are available in Room 142 of the Computer Center. To use ARAND on the:

Cyber: ATTACH,ARAND/UN=LIBRARY

LOAD,MAINPROG,ARAND

-Where MAINPROG is your compiled FORTRAN calling program

OS-3: LOAD,56,L=*ARAND

RUN

SPSS

The Statistical Package for the Social Sciences (SPSS) Version 6.0 is available for public use. This system was developed at Stanford University in an effort to simplify the process of data analysis for social scientists so that they can perform extensive manipulation and analysis of data without extensive technical knowledge of computer systems.

The McGraw-Hill SPSS Manual should be ordered through the Bookstore. To use SPSS on the Cyber:

```
ATTACH,SPSS/UN=LIBRARY.
SPSS.
```

PASCAL-2

This is a high level general purpose programming language developed by Dr. Wirth in Zurich, Switzerland.

SNOBOL 4

SNOBOL 4 is a list processing language.

SSP

A collection of FORTRAN subroutines in the areas of Mathematics and Statistics.

COMPLOT

The conversion of the OS-3 COMPLOT plotting package to KRONOS has been completed. The COMPLOT routines provide plotting capabilities on the Tek 4002, Tek 4010, HP 7200, Calcomp 1627 II, and Gerber plotting devices. A few minor differences exist between the OS-3 and KRONOS versions which are detailed in an appendum to the COMPLOT USER'S MANUAL which is available from Gayle Zandofsky room 140.

Compilers and Languages available are: FORTRAN, COBOL, BASIC, APL, COMPASS AND PL1.

NONLINEAR OPTIMIZATION ROUTINES AVAILABLE ON CYBER

Routines for solving the following nonlinear optimization problems are now available on Cyber:

(1) Nonlinear Programming problems

(2) Nonlinear Regression

(3) Simultaneous nonlinear equations.

See Billy Chou at Batcheller 300 (x2726) for details about these routines.

USER OPERATIONS & SERVICES

NEW MAGNETIC TAPE LIBRARY

The Operations staff has completed the task of converting the entire magnetic tape "Private" and "Rental" libraries to a new color-coded library system. The new system provides numerous benefits:

1. Operators can locate tapes quickly for faster service.
2. Misfiled tapes are easily located.
3. A full history of tape information will be kept and eventually tied into an on-line reporting system.

Private and Rental tape users are being notified of the new five digit numbers. New tape users will be required to fill out a form at the time they obtain use of a tape. All instructions for completing it are on the form. The top copy will become the user's "receipt" copy and must be returned when releasing a rental tape or picking up a private tape. The new five digit ID numbers must be used for all tape requests.

New Level of Tape Security

In addition to the new tape number we are asking all tape users to assign a unique PASSWORD to each mag tape. This will give both users and computer operator a second level of tape identification. The password should be used in the comments field of the tape EQUIP command. If you have any questions on our library system, call Dan Berg, Operations Supervisor at x3584.

MANUALS FOR COMPUTER CENTER USERS

The Computer Center operates a pay-as-you-go plan regarding computer manuals. This will include CDC Cyber manuals (As soon as they arrive) and the CDC 3300 manuals. Manuals will be available from the Publication Clerk in Room 142 of the Computer Center. This service is provided for all faculty users, whether on campus or off. Instructors ordering manuals for a class are to place their order through the bookstore and have their students pick them up there. For a current price list of available manuals address your inquiry to the Publications Clerk, Room 142, Computer Center or call x1183.

MANUALS FOR STUDENTS

Instructors please note: If you will be using Cyber or 3300 manuals in your classes Fall quarter, please order these through the bookstore as you do other texts. This will allow your students to get the bookstore rebate on these purchases.

PUBLICLY AVAILABLE TERMINALS

Location	Room	No. of Terminals
Agriculture Hall	201A	1
Agriculture Hall	330A	1
Apperson Hall	309	7
Bexell Hall	419	2
Chemical Engineering	204	5
Computer Center	228	17
Cordley Hall	2008	1
Cordley Hall	3054	1
Cordley Hall	4044	1
Covell Hall	106	1
Covell Hall	214	2
Extension Hall	206	2
Finley Hall	117	1
Gilbert Hall	206	2
Kidder Hall Basement	(near 72)	6
Kidder Hall	76	6
Kidder Hall	142	1
Kidder Hall	294	1
Moreland Hall	130	1
Oceanography	172	2
Oceanography	268	1
Oceanography	368	1
Oceanography	444	2
Peavy Hall	282	4
Poling Hall	Conference Room	1
Rogers Hall	224	2
Rogers Hall	438	1
Sackett C	Beau Room	1
Social Science	208	1
Student Health Center	Basement	1
Student Health Center	111	1
Weniger Hall	112	1
Weniger Hall	118	1
Weniger Hall	127	1
Weniger Hall	269	1
Weniger Hall	401	1
Weniger Hall	503	1
Wilson Hall	100	1

There are approximately 130 additional terminals on the OSU campus. They are privately supervised by various departments. Arrangements may be made through the departments for access to their terminals.

CYBER ACCOUNT VALIDATION CHANGES

On October 6, 1975, a new user validation system will be installed which will allow users to better control and monitor their accounts. Deck structure will be the same except that the CHARGE card will not be necessary. The ACCOUNT card will have the same format and user numbers and passwords will be the same. Accounting will be done on the current user number and charge number pair. For example, if your current deck included:

```
ACCOUNT,90999, PASSWOR.
CHARGE,759168,PROJECT.
```

Your new deck would only need the ACCOUNT card and charges would be made against user number 90999 and charge number 759168, i.e., a single user number may have only one charge number but a charge number may be used by more than one user number. Some of the items maintained for each user-number charge-number include:

a) user number -- assigned by the accounting department

b) password -- user selectable and may be changed

c) charge number -- assigned by the accounting department

d) dollar amount left on the account -- this quantity is debited by the job cost each time a job is run. When this quantity becomes negative the user is not allowed to login. At the end of each day permanent file charges for the day will be debited to the account also. The only charges that will be made to the account that will not be debited will be for special forms and tape rental.

f) Maximum number of pru's for indirect permanent files.

NEW TEST SCORING SERVICE

The Datronics test scoring machine is being moved from IRAM to the Computer Center Room 201 for the purpose of expanding the service to the faculty. The Computer Center will have the machine available for use from 8:00 a.m. to 10:00 p.m. Monday through Friday. The machine will be available with or without an operator depending on your needs. If you have any questions concerning this service call Jerry Johnstone at x2126 or Ron Davis at x2494.

HARDWARE DEVELOPMENT AND MAINTENANCE SERVICE AVAILABLE

The Computer Center provides a hardware development, maintenance and consulting service for Oregon State University and other institutions using the Center.

The development and consulting activities usually involve electronic systems in data acquisition, communications, interfacing, telephone company facilities, and various types of remote computer terminals. Also, a printed circuit board service is available for prototype quantities.

The maintenance services are available for both electronic and mechanical systems. The electronic systems include special systems as well as CRT computer terminals, mini-computers, and peripherals. The mechanical systems include the majority of the electro-mechanical remote computer terminals, paper tape punches and readers.

These services are available by calling x2494 for Doug West, maintenance on electro-mechanical systems and teleco facilities; Fred Beebee, maintenance of electronic systems, teleco facilities consulting; and Jim Fryklund, electronic systems development and consulting.

EDUCATIONAL ACTIVITIES

FALL SERIES OF SHORTCOURSES SCHEDULED

The Computer Center will offer a Fall series of shortcourses which are designed for the relatively inexperienced computer user. The sessions will begin October 27 and will be ordered so that information required in the later sessions is presented in earlier sessions.

There is no fee, but advanced registration is required. Enrollment will be limited to the first twenty applicants. The last page of this issue is a registration blank. Additional registration forms are available in the Computer Center office.

All classes will be held from 3:00-4:30 p.m. on the dates listed below in the Computer Center Conference Room. The Center will furnish computer job numbers for the applicants when required for the training session. User numbers will be distributed at the first meeting of the course and remain active until seven days following the last meeting. Users will purchase the necessary manuals for the courses.

Shortcourses will be canceled if less than six participants enroll. If you have any questions, call Joanne Hayes x2494 or JoAnn Baughman at x2161.

SCHEDULE OF SHORTCOURSES

K-1. Introduction to KRONOS 2.1 — October 28

Job Numbers - Validation and Control
Manuals
Languages and Systems Available
Batch Processing
Control Card Format

K-2. FORTRAN Under KRONOS 2.1 — October 30

Parameters and Options Available
Creating Files
Reading and Writing Files

K-3. Magnetic Tape Usage Under KRONOS 2.1 — November 4

Tape Formats
Reading and Writing Tapes

K-4. Interactive Computing Under KRONOS 2.1 (2 sessions) — November 6, November 11

Text Editor
Editor
FORTRAN

K-5. Libraries Under KRONOS 2.1 — November 13

Creating Binary Files
Loader
System Libraries
User Libraries
Program Libraries

K-6. Modify and Debug Under KRONOS 2.1 — November 18

Maintaining and Debugging Programs
Procedures

K-7. Introduction to SPSS Version 6.0 2 sessions — November 10, November 12

The Statistical Package for the Social Sciences is a self-contained problem-oriented language for the analysis of statistical samples. The control cards for using SPSS, local differences and various kinds of analysis available through SPSS will be discussed.

K-8. ARAND 2 sessions November 4
November 6

ARAND is a package of (primarily) FORTRAN subroutines and main programs performing a variety of types of time series analysis, along with fairly comprehensive graphics support routines. The system is modular in design with subroutines comprising computational or graphic "blocks", and with the main programs conversational in nature, supporting a relatively common computational problem or streamlining a fairly complex one.

OS-3 Shortcourses

O-1. Introduction to Interactive Computing (2 sessions) October 27
October 29

This session will contain information which can enable you to make full use of the OS-3 system. It will include information related to equipping logical units, file definition, remote batch, use of mag tapes, manipulating files, keeping the file directory, your use of end-of-file in status, program library, purging files, overlay, etc.

All new or novice users of OS-3 should take this session.

O-2. SIPS (Beginning) 2 sessions November 3
November 5

This course includes two hours of instruction for computer novices or participants with limited statistical background. Running programs on OS-3 is a prerequisite.

O-3. SIPS (Advanced) 2 sessions November 17
November 19

These sessions assume a working knowledge of OS-3 and some statistical background or previous use of SIPS. Attendance of the beginner sessions will qualify participants.

SIPS

The Statistical Interactive Programming System (SIPS) has been developed to provide interactive program library support for statistics instruction and for elementary data analysis. It may be used from any teletype or CRT display connected with the CDC 3300 and the OS-3 operating system.

SIPS is an interactive command processing system. The user issues brief statements (called commands) to SIPS, and SIPS responds with statistical or other information, then awaits another command. This form of use is conceptually somewhat different from calling for the use of computer library programs; it is more similar to the issuing of directions to an attentive reliable assistant who responds only to a certain finite number of simple verbal stimuli. The user has control over the computer--he is using it and telling it what to do rather than responding to it.

CONDUIT

Conduit Coordinators are meeting in North Carolina on October 25-29. Conduit activities in the next year are to review, test, package and distribute computer-based educational units. Faculty throughout the United States are working with Conduit in all phases of these activities. In Oregon for more information on Conduit contact JoAnn Baughman at 754-2161.

HOW TO USE THE 3300

Six self-instructional lessons are now available on teletype usage on the CDC 3300. These lessons involve direct use of a teletype. Material covered includes logging on, use of the OS-3 EDITOR, the COPY and LABEL statements and many other useful instructions of OS-3 control mode. A job number with 1 to 2 minutes of time should be adequate. The material can be satisfactorily covered in 5 to 6 hours and give good introduction to use of the teletype under OS-3. The lessons were developed by the Computer Science Department and are available on a checkout basis in the Mathematical Sciences Learning Center, K108H. A similar series is planned for CYBER.

ACCOUNTING AND CUSTOMER SERVICES

ACCOUNTING GROUP

Introductions or re-introductions are in order to the Computer Center Accounting group (business office) located in rooms 140, 142 and 144 of the Computer Center.

The Accounting group is under the direction of Mike McQueen, business manager. He is assisted by Dolores Gugel, accountant; Gayle Zandofsky, Users' Services Coordinator; and Nancy Lee, Accounts Receivable Clerk.

Questions concerning account balances, monthly billings, etc., are handled by Nancy or Dolores. Purchase orders or other facets of account funding are handled by Dolores at x2638.

The Users' Services Office handles job numbers (for instruction, research and unsponsored research) and supplies information regarding computer rates, available terminals and computer operatoring hours. Questions regarding job status--remaining CPU time and file storage--should also be directed to Gayle at x3483. The office is set up to facilitate use of the Computer Center by customers. It will make the establishment of accounts as simple as possible, and will try to help users cope with intricacies of using a complex computer system. If problems arise, users are encouraged to contact this office. Customer feedback is vital. Users are requested to notify this office when a project has been completed or when a change of authorized users is desired.

Manuals for both the CYBER and 3300 may be purchased by users (excluding class required manuals) from Nancy in room 142. Other brief publications put out by the Computer Center are also available here.

COMPUTER RATES FOR OREGON STATE UNIVERSITY

OS-3

CPU Time	$ 5.00 per CPU minute
Tape	.015/sec. channel time (.50 handling charge)
Elapsed time at teletype	2.00/hour
Elapsed time at high-speed terminal	7.50/hour
On-line disk storage	.15/block/month (512 words/block)
Punch cards	.30/100 records
Input cards	.15/100 records
High speed input	.50/100 records ($1 handling charge)
Paper tape punch (PDP-8)	.50/100 records ($1 handling charge)
Remote line printer	.05/100 records
Line printer	.125/100 records (extra charge when special forms are requested)
Plotter	.12/100 records + $.15/foot of paper

37.5% OS-3 rate reduction 6:00 p.m. through 2:00 a.m. Monday through Friday, all day Saturday and Sunday

Commercial rates are 125% of University rates.

CYBER

CPU Charge	$ .085/system second
Input Cards	.012/pru
Punch Cards	.024/pru ($.0096/pru if stock supplied.)
Line Printer	.0075/pru (+ charge for special forms used.)
On-line Disk Storage (Indirect Files)	.10/640 characters + $5.00/direct access file/month.

Interactive Terminal Connect Charges

110-1200 baud	$2.00/hour
2400 baud	4.50/hour

Remote Batch Terminal Charges

Input Cards	.005/pru
Line Printer	.005/pru

Commercial Rates:

Commercial rates are 160 percent of University rates.

USAGE INFORMATION

OPERATING STATISTICS

	August	September
Batch Logons	3650	3121
Teletype Logons	22772	20561
Total TTY Console Hours	6053	5627
Total CPU Hours	216.02	183.46
Batch CPU Seconds	130613.99	144573.50
TTY CPU Seconds	647048.17	515870.32
OS-3 Hours	455	441
Average Number of Users		
Weekdays	24	22
Saturdays	10	9
Sundays	10	8
CPU/HOUR/TTY User	106.9	91.7
Average Job Time (Seconds)	29.43	27.89
Average Time for TTY Jobs (Sec.)	28.41	25.09
Average Time for Batch Jobs (Seconds)	35.78	46.32

Computer Center
1975
Fall Term Shortcourses

Please check the courses that you wish to attend. These are limited to the first 20 applicants per session. There are no charges or registration fee for these shortcourses.

Name: _____

Address: _____

Please check your experience level and the courses that you want to attend. All classes are from 3:00 p.m. to 4:30 p.m.

☐ Beginner ☐ Intermediate ☐ Advanced

KRONOS

☐	1. Introduction to KRONOS 2.1	October 28
☐	2. FORTRAN Under KRONOS 2.1	October 30
☐	3. Magnetic Tape Usage Under KRONOS 2.1	November 4
☐	4. Interactive Computing Under KRONOS 2.1 (2 sessions)	November 6, 11
☐	5. Libraries Under KRONOS 2.1	November 13
☐	6. Modify and Debug Under KRONOS 2.1	November 18
☐	7. Introduction to SPSS Version 6.0 (2 sessions)	November 10, 12
☐	8. ARAND (2 sessions)	November 4, 6

OS-3

☐	1. Introduction to Interactive Computing (2 session)	October 27, 29
☐	2. SIPS (Beginning) (2 sessions)	November 3, 5
☐	3. SIPS (Advanced) (2 sessions)	November 17, 19

Please return to: JoAnn Baughman
Computer Center
Oregon State University
Corvallis, OR 97331

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Computer Center
Oregon State University
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COMPUTER CENTER NEWSLETTER

Corvallis, Oregon
(503) 754-2494

Volume X, Number 6
November/December, 1975

Director: Larry C. Hunter

Editor: JoAnn Baughman

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GENERAL INFORMATION

COMPUTER CENTER HOLIDAY SCHEDULE

The Computer Center will be closed at 5:00 p.m. December 24 and 31 and all day on December 25, 28, January 1 and 4. The Main Office will be closed on December 26 also. CYBER will continue to be available on Saturdays from 9 a.m. to 5 p.m. The Consulting service will be available to faculty from 10:30 a.m. to 2:30 p.m. in Room 211 Monday and Tuesdays throughout the holidays.

Have a happy holiday.

NEW DISK ON CYBER

Two new 844 disk drives have arrived and will be installed on the CYBER system by January 1, 1976. The additional disk drives will provide approximately a 200% increase in user permanent file storage. With the new drives, and the current rate for permanent file storage will be reduced from $.10/pru/month to $.064/pru/month. The $5.00/Direct access file/month charge will be continued.

CONFERENCE ON COMPUTERS IN THE UNDERGRADUATE CURRICULA

The 1976 Conference on Computers in the Undergraduate Curricula will be held June 14-16, 1976 at the State University of New York at Binghamton.

Investigators are invited to submit papers describing actual experience with computer use in a specific course or sequence of courses. Only papers that report concrete results are accepted, and projects that have been described at previous conferences are not considered unless substantial new results can be reported.

The deadline to turn these papers in is January 15, 1976. You can send the papers to: Gerald L. Engel, Virginia Institute of Marine Science, Gloucester Point, Virginia 23062.

VIDEOTAPE SCHEDULE FOR WINTER TERM

Videotapes on the use of OS-3 and on FORTRAN will be shown Winter Term beginning January 19. New users are urged to watch either of two showings: (1) 3:30 p.m. on Cable Channel 11 or in Kidder 108J, or (2) at 10:00 p.m. on Cable Channel 5 or in Kidder 108E.

1976 ACM COMPUTER SCIENCE CONFERENCE

This conference provides a forum for the presentation of short reports on current research in all areas of the computer and information sciences. The conference will be February 10-12, 1976 at the Disneyland Hotel/Anaheim, California. For information and registration contact Julian Feldman, Department of Information and Computer Science, University of California at Irvine, Irvine, CA 92664.

EXPANDED COMMUNICATIONS PROCESSOR

The Computer Center has added another front-end communication computer to the communications system. This system presently communicates with the CDC 3300/OS-3 system and has 120 communication ports. This number will be increased to approximately 250 ports. Also, it is planned that this communications system will be augmented so that it can also communicate with the CDC Cyber 73. The immediate benefit to users is that manual patching between computers will no longer be necessary.

The longer range plan is that the front-end communication system will provide access to multiple host computer using a simple control language procedure for a variety of synchronous and asynchronous data lines.

SOFTWARE

*TIMER

*TIMER is an overlay available on OS-3 to enable users to determine if they have enough time on their job number for a particular run, without making the run. It checks the estimated run time against the time left on a user's number and if insufficient, will abort the job. If there is ample time, the time limit will be set to the estimated time and the run can be started.

The program is called with a control statement of the form:

7
8*TIMER,nnnn

where nnnn is the estimated time of the run. This number should be between 1 and 8387 secs. If the estimate is omitted or non-numeric the message: PARAMETER ERROR will be printed and the job aborted. If the time estimate is more than the time left on the number, the message INSUFFICIENT TIME - ABORTED is printed and the job aborted.

KRONOS 2.1.1 TO BE UPDATED TO KRONOS 2.1.2

KRONOS will be updated after the first of the year to the latest CDC release. This release contains several significant changes affecting users. The major ones are:

1. A 64-character set will be supported which provides full 64- and 128-character set capability under TELEX. A routine CONVERT will be provided to convert 63-character text files to 64-character text files and is described in the KRONOS 2.1.2 reference manual. TSRUN will not support the 64-character set and will not be available. Users should use FTNTS.
2. Two new commands, RERUN and NORERUN, will be available to allow user control over whether batch jobs are to be rerun in the event of a system crash.
3. A new CYBER LOADER (Pub. #60344200) will replace the current relocatable loaders. LINK will be retained for compatibility.
4. The NODROP command has been deleted, however, the OLD and NEW commands have a ND parameter for specifying that files are not to be returned. Consult the T-S USERS MANUAL for KRONOS 2.1.2 for a description of other new features.

It is currently planned to release the new system near the end of January or the first of February. Users will be notified two weeks in advance of the release date.

NEW FEATURES FOR KRONOS

A new text editor SCRIBE has been installed on the system. SCRIBE was developed at Tektronix and has many features not available in EDITOR. Manuals are available from Nancy in room 142.

Users whose account balances are negative may now execute CATLIST, PURGE, CHANGE & PERMIT commands from TELEX in order to make their files available to other accounts.

$FACT

This Week's Fact, an ongoing attempt by certain Computer Center personnel to further the information explosion, is now available to all OS-3 users as $FACT.

IMPORTANT NOTES FOR MAGNETIC TAPE USERS

Changeover Complete

During Fall quarter all magnetic tape users were notified of a change in tape numbers. The new tape library system provides the user with a number of benefits:

- Tapes are easily located for quicker mounting.
- A color coded system makes it difficult to misfile a tape.
- If a tape is misfiled it is easy to locate.

The changeover is now complete and all users have a new five-digit tape number for tapes in the Private and Rental Libraries.

Security Notes

At the time new tape numbers were assigned users were requested to supply a unique character password for each tape. This password provides a second level of security for those users not using internal label checking. This gives both user and operator another check point to insure the correct tape is mounted. Passwords are required for all three types of library tapes:

1. Rental Tapes - Computer Center-owned tapes rented for a fee of $1.00 per month. A damaged or worn tape is replaced.
2. Private Tapes - User-owned tapes that are stored in a secure, controlled environment for a fee of $1.00 per month.
3. Temporary Tapes - User-owned tapes. Tape is turned in with job and handed back to user when job is picked up. No fee for storage is charged.

It should be noted that the password concept is used as a sight check and the most secure method for requesting a tape is to use internal label checking. Very important tapes should be "backed up" by another tape or some other form of output media.

Deadline

Starting January 2, 1976, user jobs requesting tapes without full, correct identification will be operator aborted.

Questions

Please call Dan Berg, Operations Supervisor, x2494.

REFUND PROCEDURE

Refunds on Computer Center charges may be requested whenever a malfunction can be attributed to an error in computer operations, hardware, or software supported by the Computer Center. Students using a "class" account number must request a credit refund through their instructor.

To request a refund on a non-student account number:

1. Obtain a "Credit Request Form" from the Computer Center I/O desk.
2. Fill it out completely including your name, address, phone, account number and the dollar amount of credit requested. If any of this information is lacking we will not be able to process the request.
3. Give a clear reason for the request with a time and date of occurrence.
4. Attach the complete output for the run to the Credit Request. If the request is denied the output will be returned.
5. Return everything to the I/O desk. We will try to process each request within one week. A copy of your request and action taken will be mailed to you. If there is justification for your request your account will be credited.

Note to Instructors: All student refunds must go through the instructor. The instructor can credit a student job number by contacting Gayle Zandofsky, Computer Center Business Office, x3483. Please emphasize the importance of correct control card order and card form before your students submit jobs for class assignments. Computer charges for user errors are not refunded.

CONSULTING SERVICES

The Computer Center provides consulting for users in Room 211 Monday through Friday from 10:30 a.m. until 4:30 p.m. The consulting staff includes professional programmers and graduate assistants who can assist users with a variety of questions. A copy of the consulting service ground rules are available at the Consultant Desk or from Gayle in the Accounting Office.

Instructors who want to limit the type of assistance that will be provided to their students should contact Gayle at the Computer Center. A special request form is available to define the level of assistance the Center will provide to each class.

EDUCATIONAL ACTIVITIES

EXPERSIM WORKSHOP

CONDUIT/Oregon and Oregon State Department of Mechanical Engineering, with an EXXON grant, is sponsoring a workshop on using EXPERSIM on January 9 and 10, 1976. Participants have been selected from schools throughout Oregon. A second workshop is planned for Spring Term. If you are interested contact CONDUIT/ Oregon at 754-2161.

What is EXPERSIM?

EXPERSIM (EXPERimental SIMulation) is a system for teaching research design through computer simulation. It includes not only a set of computer programs and accompanying written materials for student and faculty use, but a classroom pedagogy that can emphasize the learning of research strategies in the context of a simulated scientific community.

Who is it for?

EXPERSIM is appropriate for any undergraduate course concerned with research questions and analysis of empirical results from experiments designed to address those research questions. Although the system has been piloted and originally developed within a behavioral science context, its applicability to biological and physical science as well as political science can been seen.

USAGE INFORMATION

OPERATING STATISTICS

	October	November
Batch Logons	5312	4256
Teletype Logons	31642	31786
Total TTY Console Hours	7866	8526
Total CPU Hours	217.55	197.34
Batch CPU Seconds	162423.10	162349.46
TTY CPU Seconds	620774.29	548059.34
OS-3 Hours	455	441
Average Number of Users		
Weekdays	27	33
Saturdays	11	15
Sundays	15	21
CPU/HOUR/TYY Users	78.9	64.3
Average Job Time (Secs.)	21.19	19.71
Average Time for TTY Jobs (Secs.)	19.62	17.24
Average Time for Batch Jobs (Sec)	30.58	38.15

Oregon State University
Computer Center
Corvallis, OR 97331

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